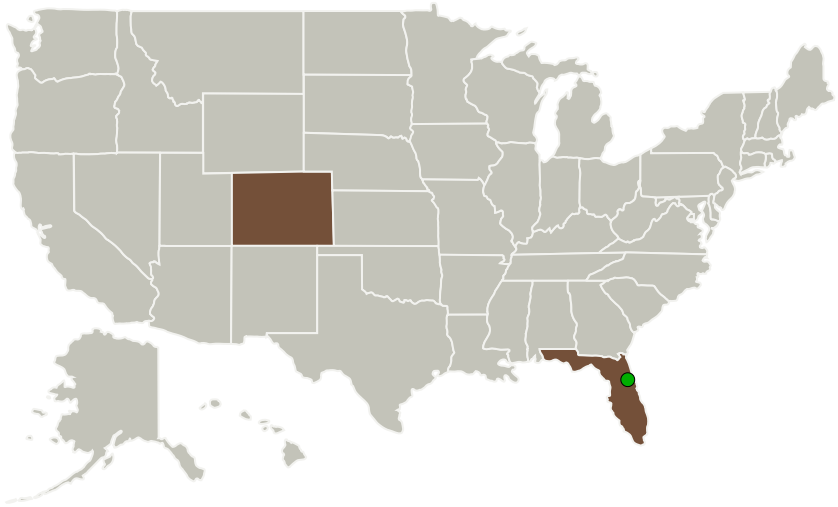
Improved Test and Launch Operations, Phase I

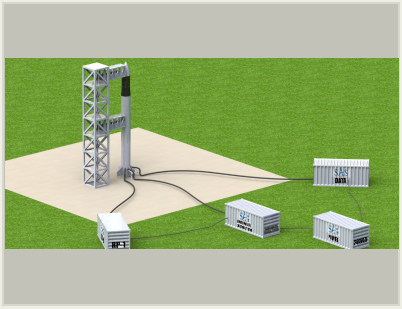
Completed Technology Project (2016 - 2016)

Project Introduction

Special Aerospace Services (SAS) has detailed knowledge and experience in remote and autonomous launch sites, inclusive of foreign launch sites. SAS will provide NASA with an analysis of the historic and current trending of the launch vehicle to ground and launch vehicle to payload interfaces. SAS will accomplish this by leveraging its extensive knowledge of domestic and foreign launch vehicles (traditional and ?new space?) and their associated launch sites. In leveraging this data, SAS will identify candidates for possible standardization, and where candidates are not available, will develop preliminary concepts for considerations of becoming standards. As part of the preparation for this effort, SAS has engaged a robotic and autonomy control company (outside the space industry) to advise SAS on new innovative autonomy technology and its applications for developing non-standard approaches to processing and operating spaceflight vehicles.

Primary U.S. Work Locations and Key Partners





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Organizations Performing Work	Role	Type	Location
Special Aerospace Services	Lead Organization	Industry Small Disadvantaged Business (SDB), Women-Owned Small Business (WOSB)	Boulder, Colorado
Kennedy Space Center(KSC)	Supporting Organization	NASA Center	Kennedy Space Center, Florida

Primary U.S. Work Locations	
Colorado	Florida

Project Transitions

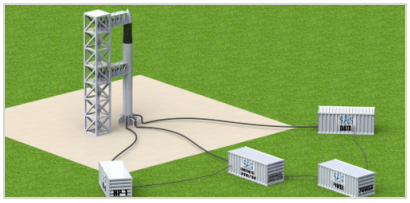
June 2016: Project Start

December 2016: Closed out

Closeout Documentation:

- Final Summary Chart*(https://techport.nasa.gov/file/139784)*

Images



Briefing Chart Image
Improved Test and Launch Operations, Phase I
(https://techport.nasa.gov/image/136759)

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

Special Aerospace Services

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

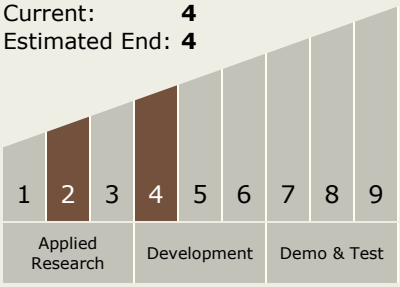
Carlos Torrez

Principal Investigator:

Timothy A Bulk

Technology Maturity (TRL)

Start: **2**
Current: **4**
Estimated End: **4**



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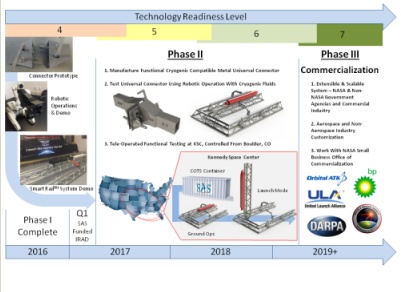
Completed Technology Project (2016 - 2016)



Final Summary Chart Image
Improved Test and Launch Operations, Phase I Project Image *(https://techport.nasa.gov/image/130489)*

Technology Areas

Primary:

- TX13 Ground, Test, and Surface Systems
  - TX13.4 Mission Success Technologies
    - TX13.4.4 Autonomous, Real-Time Command and Control

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System